



COURSE TITLE: ACADEMY BIOLOGY

Biology is the study of living organisms, their origins, how they survive, reproduce, change over time, and interact with each other and their environments. The Academy Biology curriculum is an introductory course taught in two semesters of high school. The primary objective of the course is to provide students with a fundamental understanding of modern biology and scientific processes, building a foundation for success in the college level AP courses to follow.

Goals:

Students will learn to -

- Think Critically
- Design Scientific Hypotheses & Experiments
- Write good scientific essays
- Conceptualize information, rather than memorize
- Interpret & Analyze scientific data
- Solve problems by using the Scientific Method
- Read informational text for understanding & become concise note takers

COURSE NUMBER: SC13 LS

CREDITS: 1.0 / 1 YEAR
*fulfills life science requirement for TUHSD

LOCATION: Room 415

INSTRUCTOR: Debbie Dodge
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480 – 839 – 4222 ext. 68132

TEXTBOOK: *Biology-concepts and applications, Starr-sixth Edition*

The Academy Biology curriculum differs from the regular Biology curriculum in meaningful ways. In this course, students will undertake some independent projects that will increase scientific literacy, as well as critical thinking skills, communication skills, and investigative skills by examining real world problems. The Academy curriculum examines topics with more depth and includes more advanced resource material in addition to the adopted text. Laboratory investigations play a more prominent role in the Academy course. Labs are more sophisticated than in the regular curriculum and students are expected to design and carry out experiments using appropriate methods and resources

Projects will be discussed at length in the near future with the class. This information will be sent home with the students. Please ask to see your student's planner as to the specific dates of such projects as they are assigned.

UNITS OF STUDY: The following units represent our tentative course of study for the coming year.

UNIT 1:	INTRODUCTION TO BIOLOGY
UNIT 2:	PRINCIPLES OF CELLULAR LIFE
UNIT 3:	PRINCIPLES OF INHERITANCE
UNIT 4:	PRINCIPLES OF EVOLUTION
UNIT 5:	EVOLUTION and BIODIVERSITY
UNIT 6:	HOW PLANTS WORK
UNIT 7:	MAMMALIAN SYSTEMS
UNIT 8:	ECOLOGY (integrated with other units)

Required Materials:

- Standard size, loose leaf notebook paper
- Pencils with erasers
- Black/Blue ink pen (for writing scientific labels)
- Graph paper
- Folder with 2 pockets for abstracts
- Composition Notebook
- Calculator
- Colored pencils (nice to have)

Study Techniques:

The most common problem new students have is that their study skills are not adequate for high school level classes. Studying for classes involves more than just "cramming the night before a test." The following are suggestions to improve your grade in biology and other high school courses.

1. Prepare for class before coming by reading over your notes soon after you have written them and also read over the sections of your text that will be covered in that day's lecture.
2. Make and use a vocabulary list as you go.
3. Do all worksheets, study questions, etc.
4. Keep your handouts, lecture notes, and study questions organized in a notebook.
5. Always read assigned material and make sure you outline all the main ideas and not just a single item in a section.
6. Pay attention and don't daydream in class.
7. Study frequently and in small doses. ***Cramming does not foster long term understanding that will stick with you!***
8. Set up a study group and study with friends.
9. Understand figures and diagrams from lecture and from your text.
10. **If you are having trouble with the material, get help early. Do not wait until TEST DAY!!!**